FIG.1

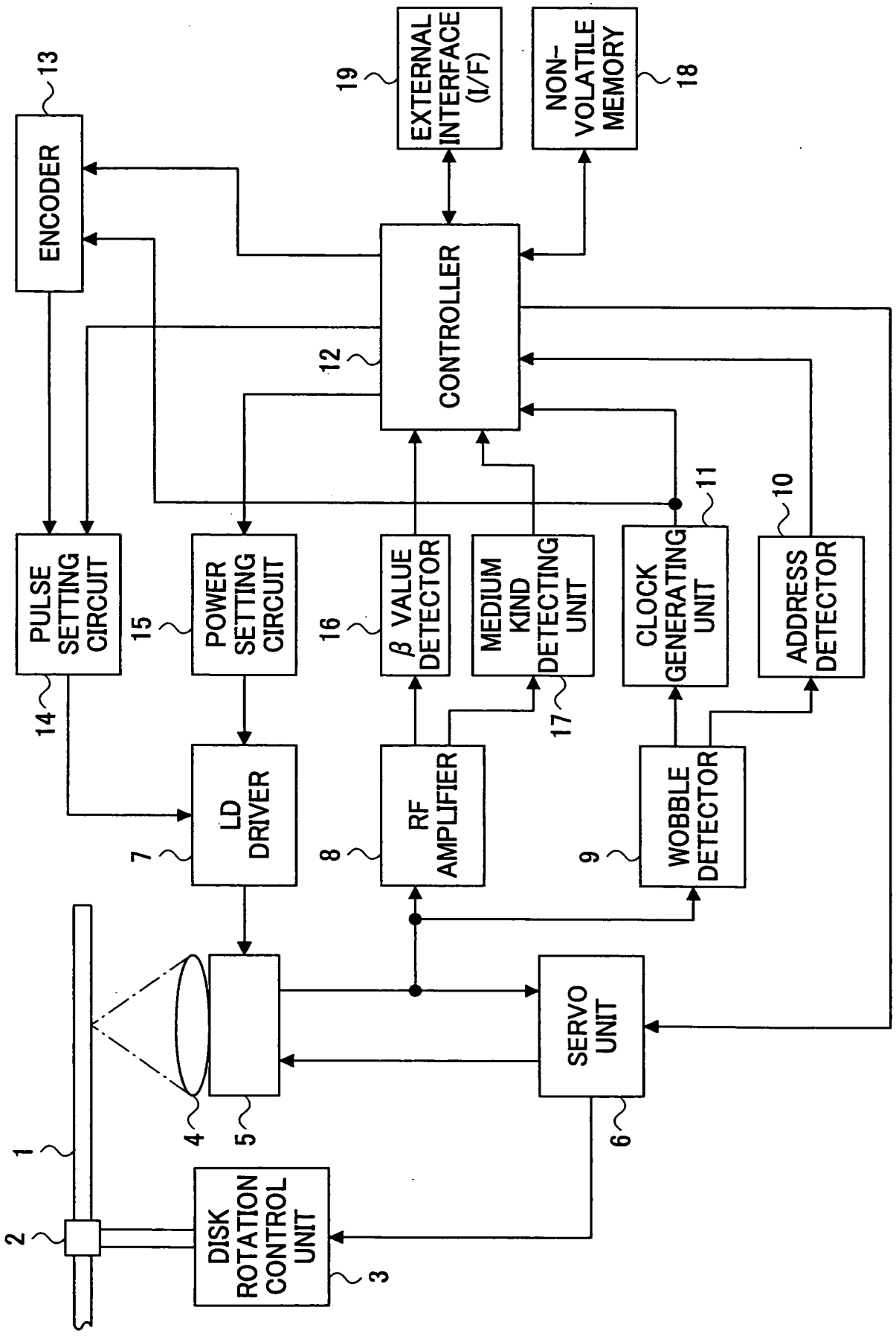

ENCODER
13
EXTERNAL INTERFACE (I/F)
19
NON-VOLATILE MEMORY
18
CONTROLLER
12
PULSE SETTING CIRCUIT
14
POWER SETTING CIRCUIT
15
β VALUE DETECTOR
16
MEDIUM KIND DETECTING UNIT
17
CLOCK GENERATING UNIT
11
ADDRESS DETECTOR
10
LD DRIVER
7
RF AMPLIFIER
8
WOBBLE DETECTOR
9
SERVO UNIT
6
DISK ROTATION CONTROL UNIT
3
1
2
4
5

FIG.2A

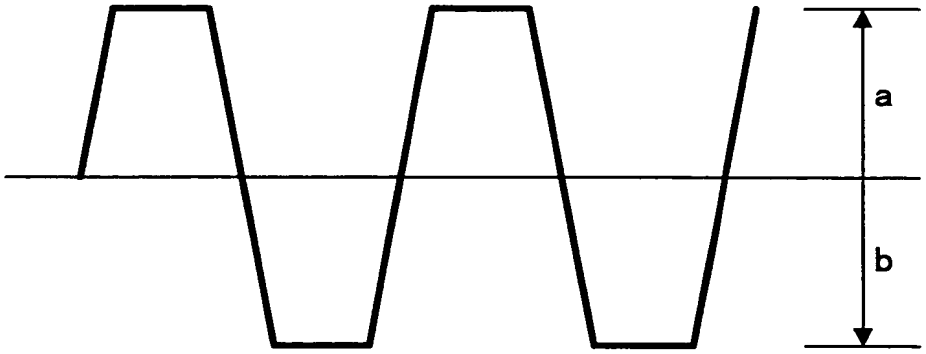


FIG.2B

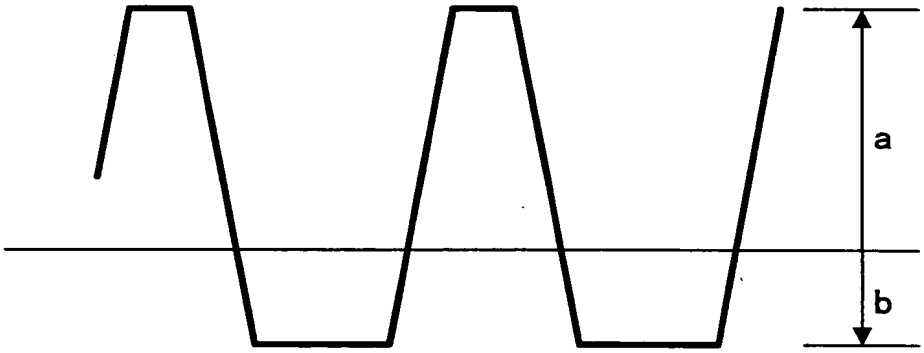
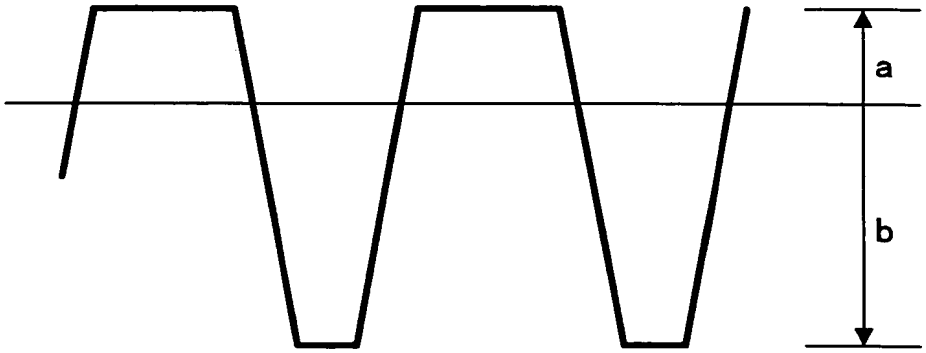


FIG.2C



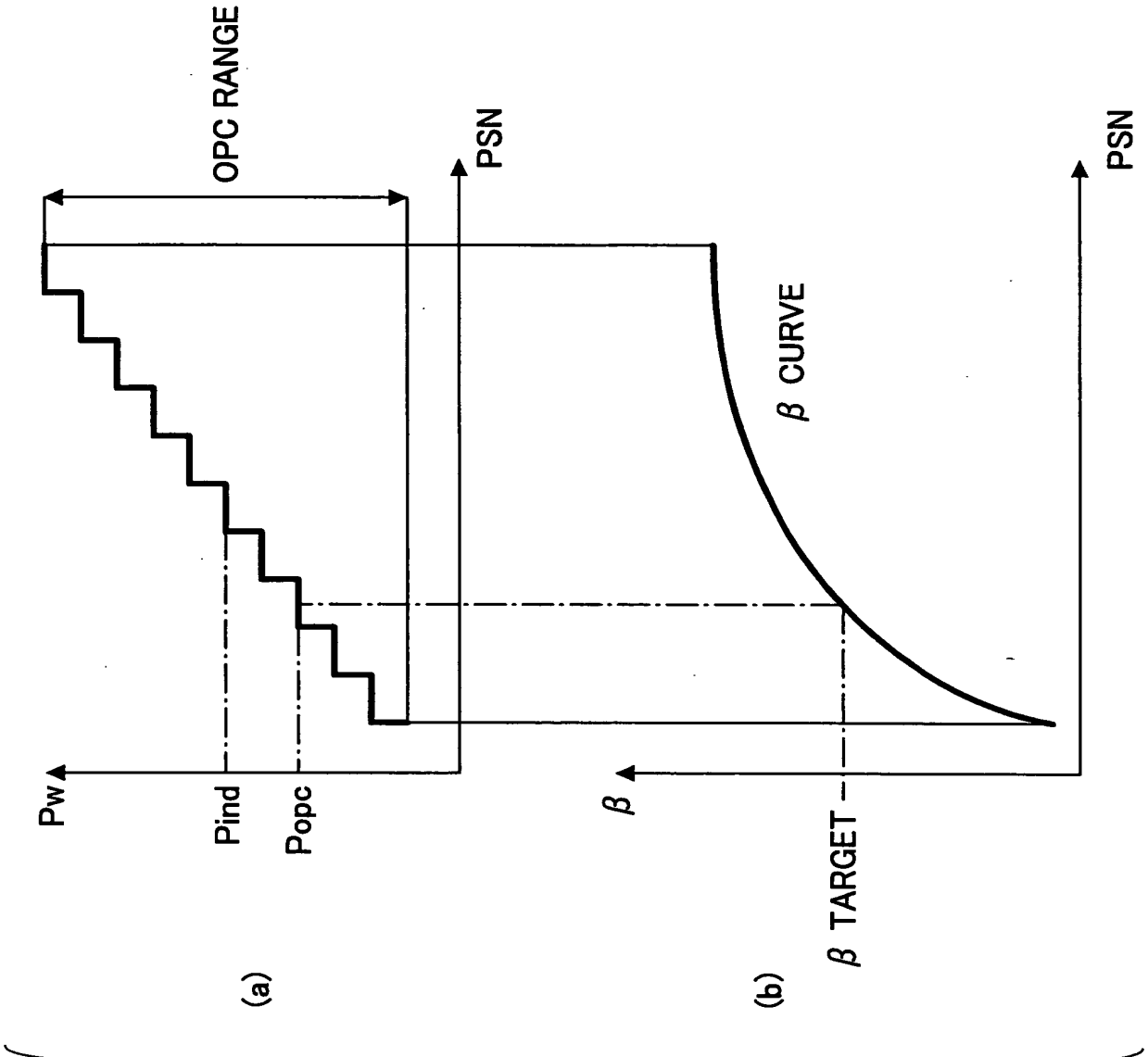


FIG.3

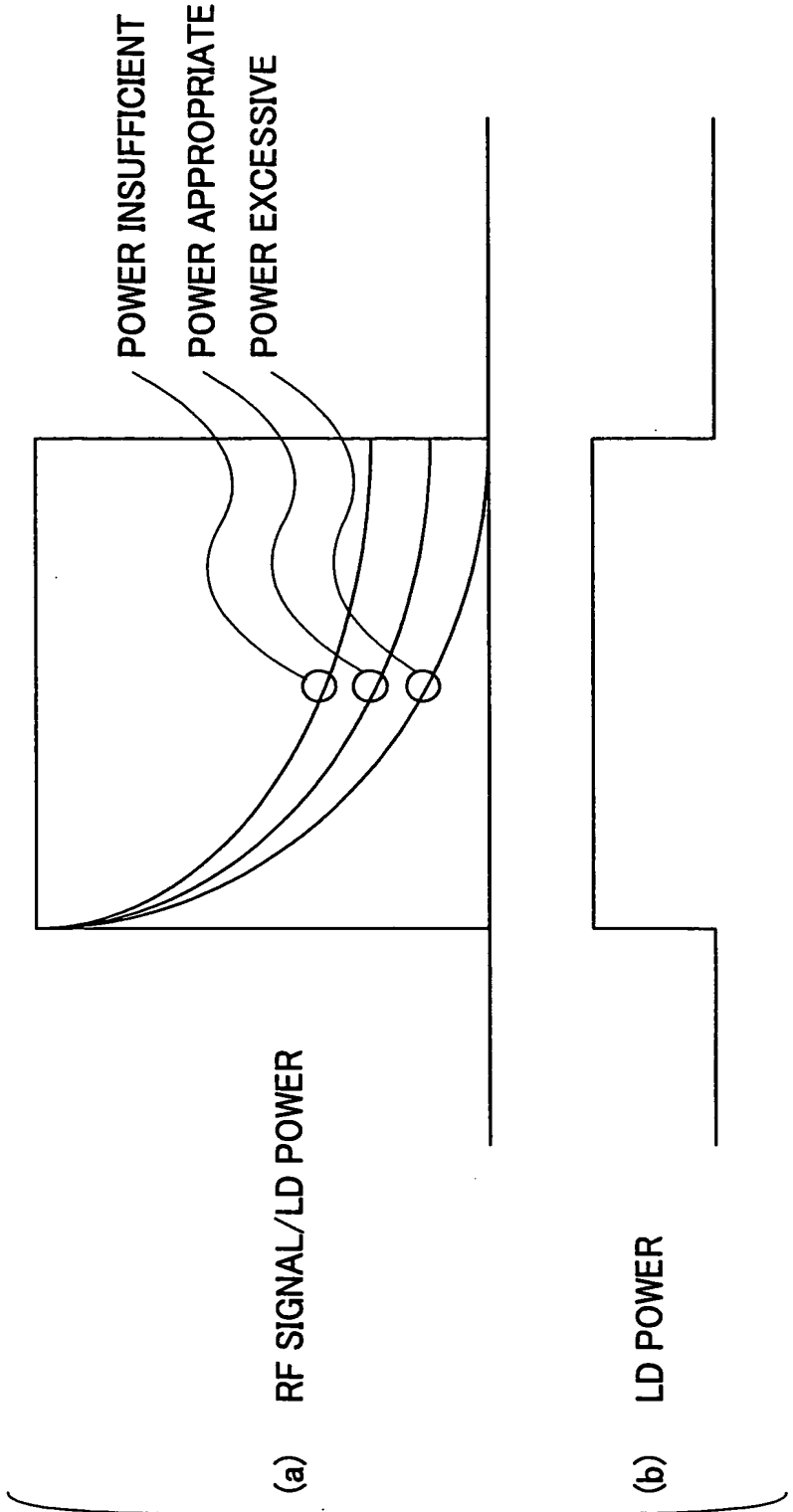

POWER INSUFFICIENT
POWER APPROPRIATE
POWER EXCESSIVE
(a) RF SIGNAL/LD POWER
(b) LD POWER

FIG.4

FIG.5

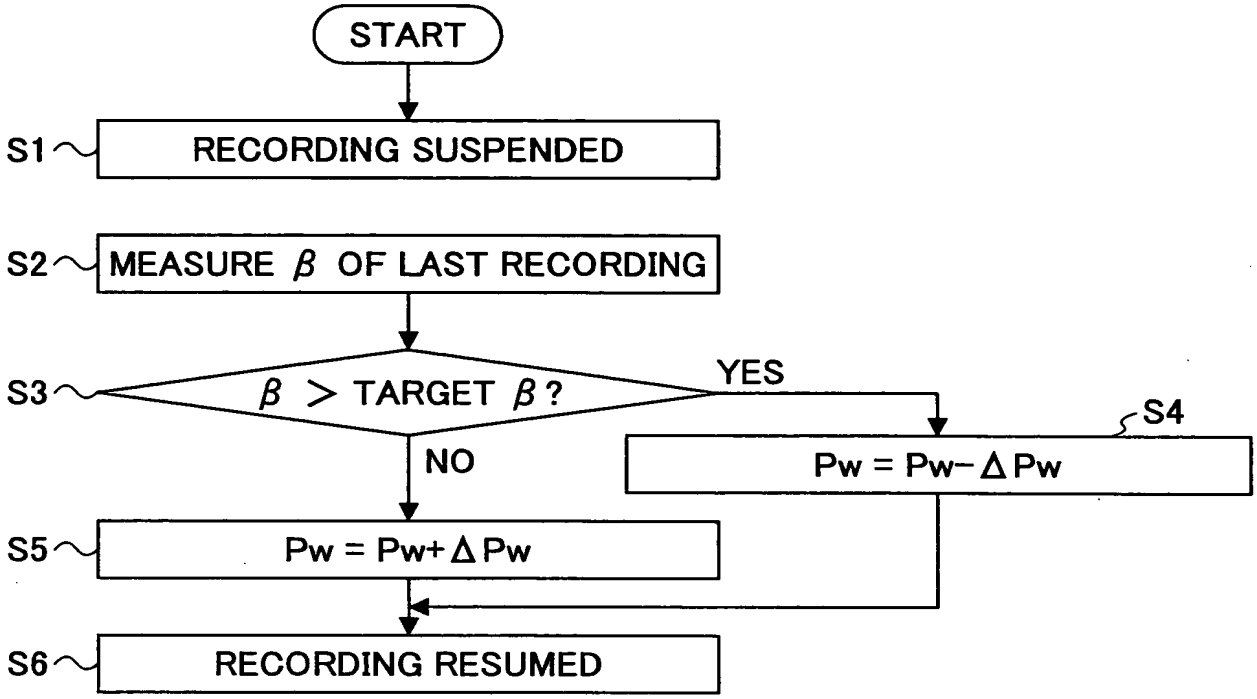

START
S1
RECORDING SUSPENDED
S2
MEASURE β OF LAST RECORDING
S3
β > TARGET β ?
YES
NO
S4
Pw = Pw− Δ Pw
S5
Pw = Pw+ Δ Pw
S6
RECORDING RESUMED

FIG.6A

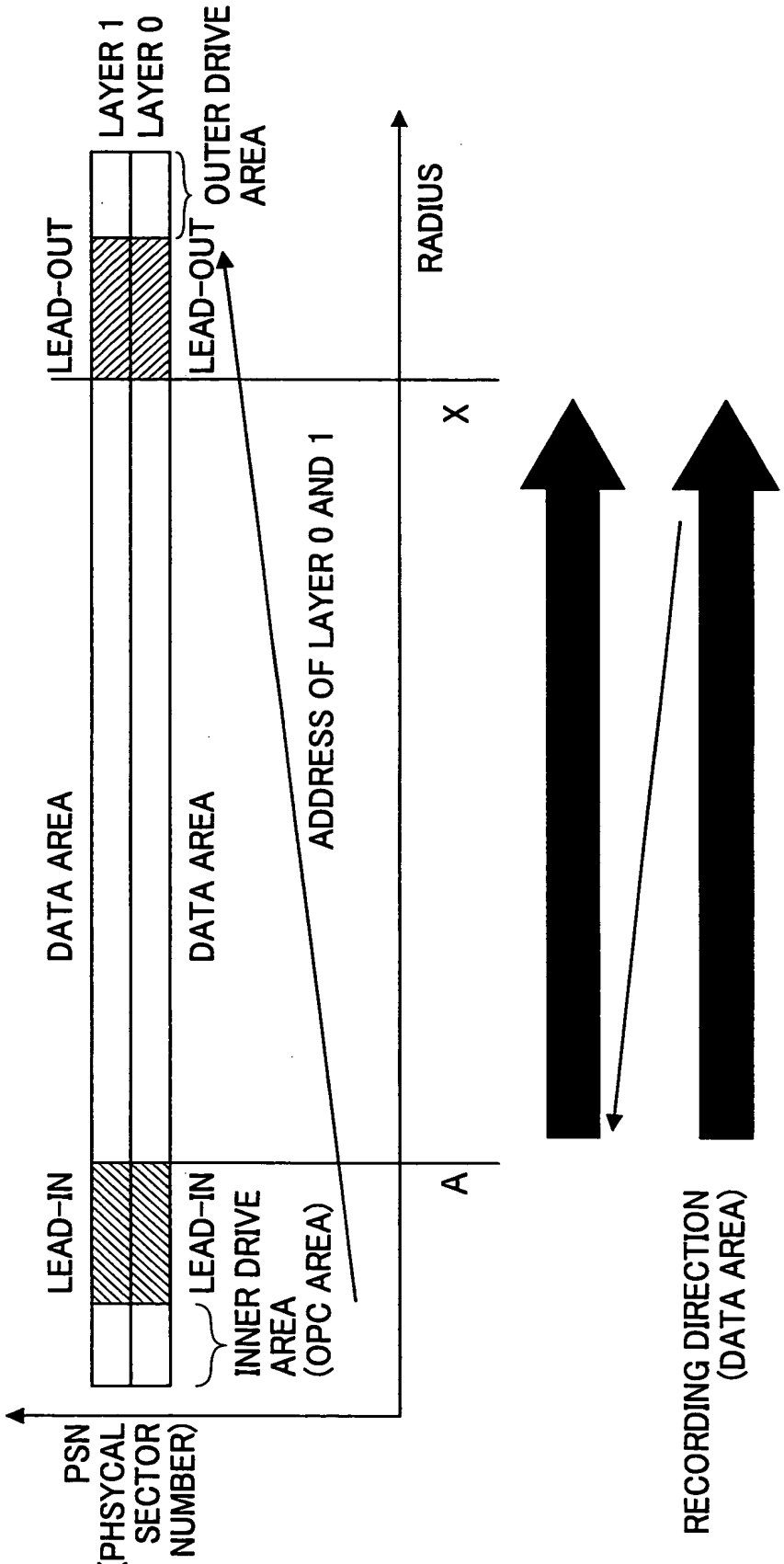

LAYER 1
LAYER 0
OUTER DRIVE AREA
LEAD-OUT
LEAD-OUT
DATA AREA
DATA AREA
RADIUS
ADDRESS OF LAYER 0 AND 1
X
A
LEAD-IN
LEAD-IN
INNER DRIVE AREA (OPC AREA)
PSN (PHSYCAL SECTOR NUMBER)
RECORDING DIRECTION (DATA AREA)

FIG.6B

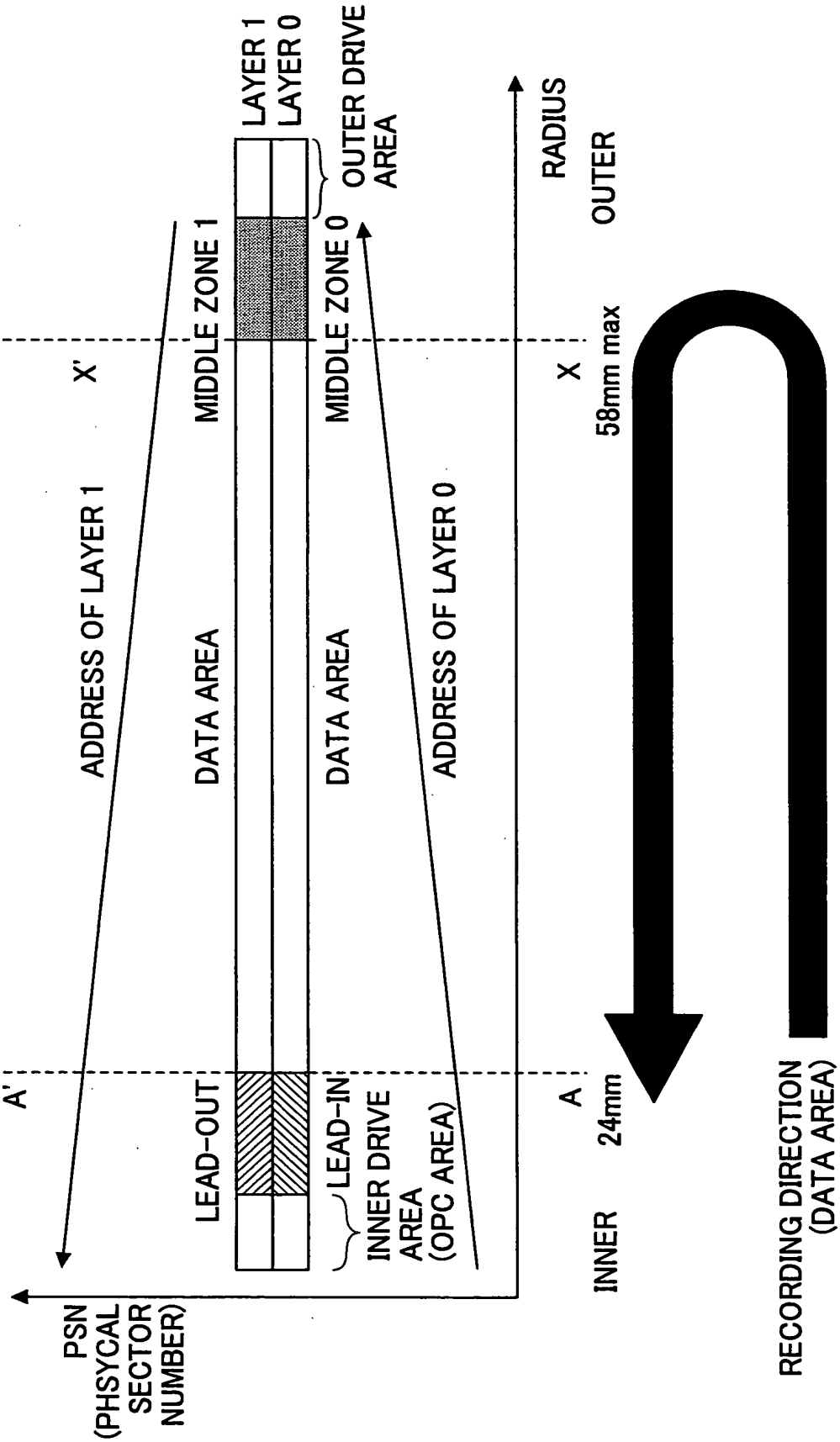

LAYER 1
LAYER 0
OUTER DRIVE AREA
MIDDLE ZONE 1
MIDDLE ZONE 0
RADIUS
OUTER
X'
X
58mm max
A'
A
24mm
INNER
ADDRESS OF LAYER 1
ADDRESS OF LAYER 0
DATA AREA
DATA AREA
LEAD-OUT
LEAD-IN
INNER DRIVE AREA (OPC AREA)
PSN (PHSYCAL SECTOR NUMBER)
RECORDING DIRECTION (DATA AREA)

FIG.7

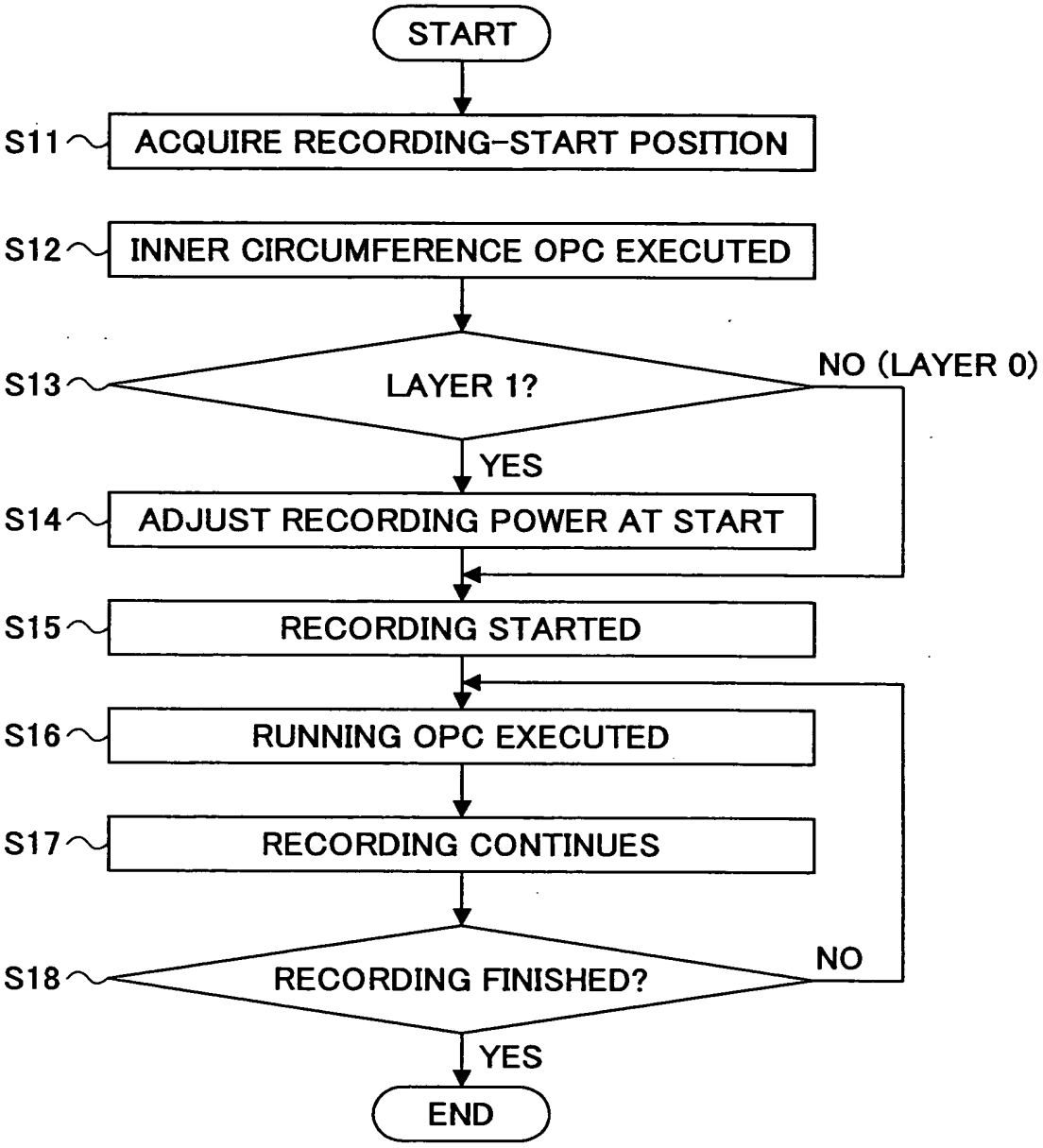

START
S11
ACQUIRE RECORDING-START POSITION
S12
INNER CIRCUMFERENCE OPC EXECUTED
S13
LAYER 1?
NO (LAYER 0)
YES
S14
ADJUST RECORDING POWER AT START
S15
RECORDING STARTED
S16
RUNNING OPC EXECUTED
S17
RECORDING CONTINUES
S18
RECORDING FINISHED?
NO
YES
END

FIG.8

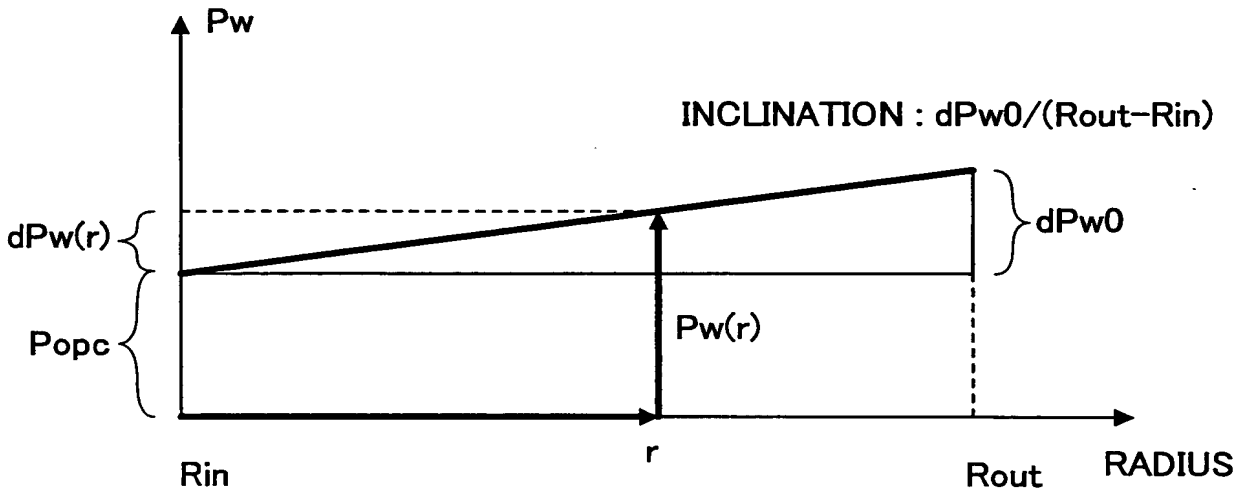

Pw
INCLINATION : dPw0/(Rout-Rin)
dPw(r)
dPw0
Popc
Pw(r)
Rin
r
Rout
RADIUS

FIG.9

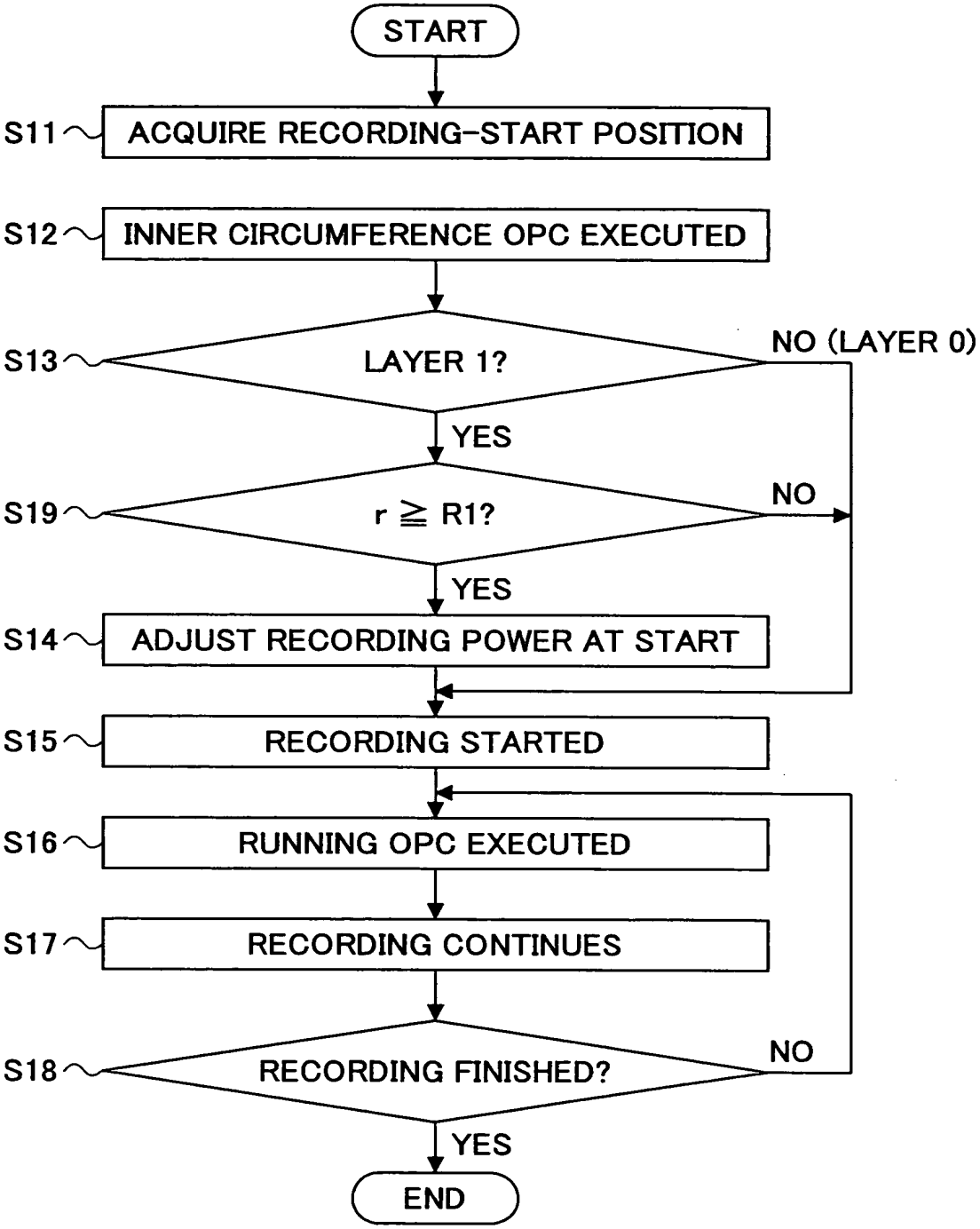

START
S11
ACQUIRE RECORDING-START POSITION
S12
INNER CIRCUMFERENCE OPC EXECUTED
S13
LAYER 1?
NO (LAYER 0)
YES
S19
r ≧ R1?
NO
YES
S14
ADJUST RECORDING POWER AT START
S15
RECORDING STARTED
S16
RUNNING OPC EXECUTED
S17
RECORDING CONTINUES
S18
RECORDING FINISHED?
NO
YES
END

FIG.10

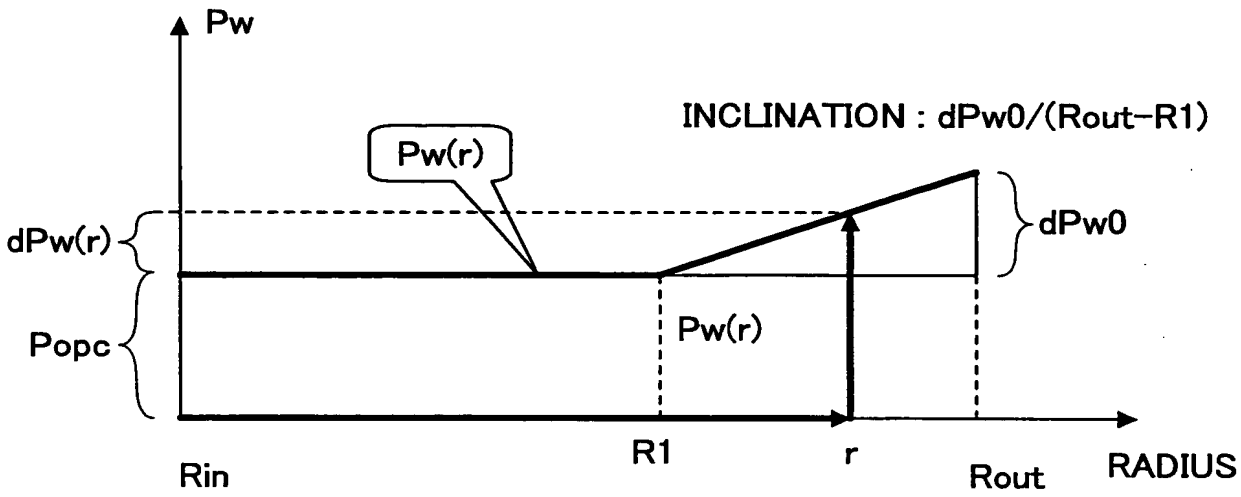

Pw
INCLINATION : dPw0/(Rout-R1)
Pw(r)
dPw(r)
dPw0
Popc
Pw(r)
Rin
R1
r
Rout
RADIUS

FIG.11

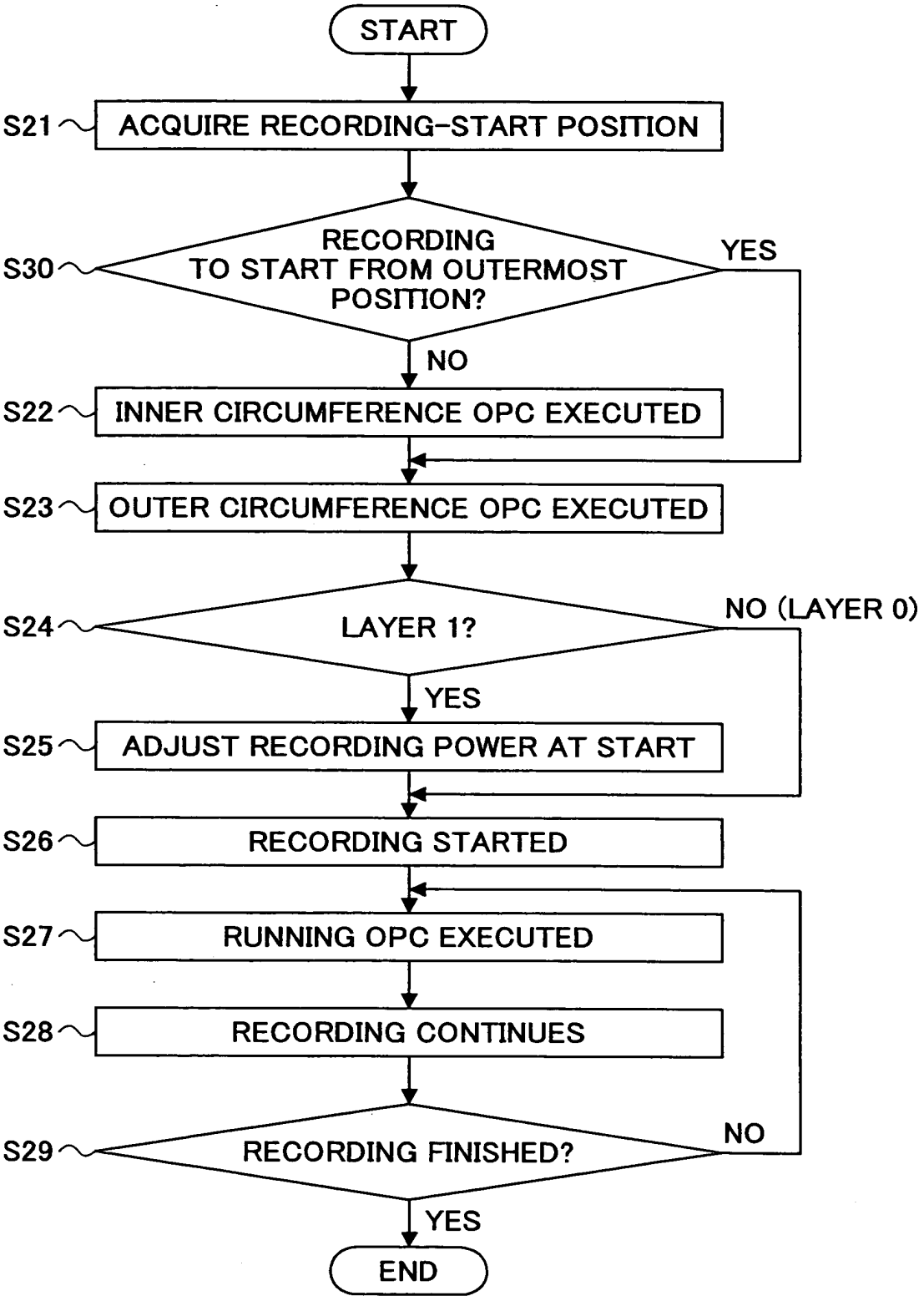

START
S21
ACQUIRE RECORDING-START POSITION
S30
RECORDING TO START FROM OUTERMOST POSITION?
YES
NO
S22
INNER CIRCUMFERENCE OPC EXECUTED
S23
OUTER CIRCUMFERENCE OPC EXECUTED
S24
LAYER 1?
NO (LAYER 0)
YES
S25
ADJUST RECORDING POWER AT START
S26
RECORDING STARTED
S27
RUNNING OPC EXECUTED
S28
RECORDING CONTINUES
S29
RECORDING FINISHED?
NO
YES
END

FIG.12

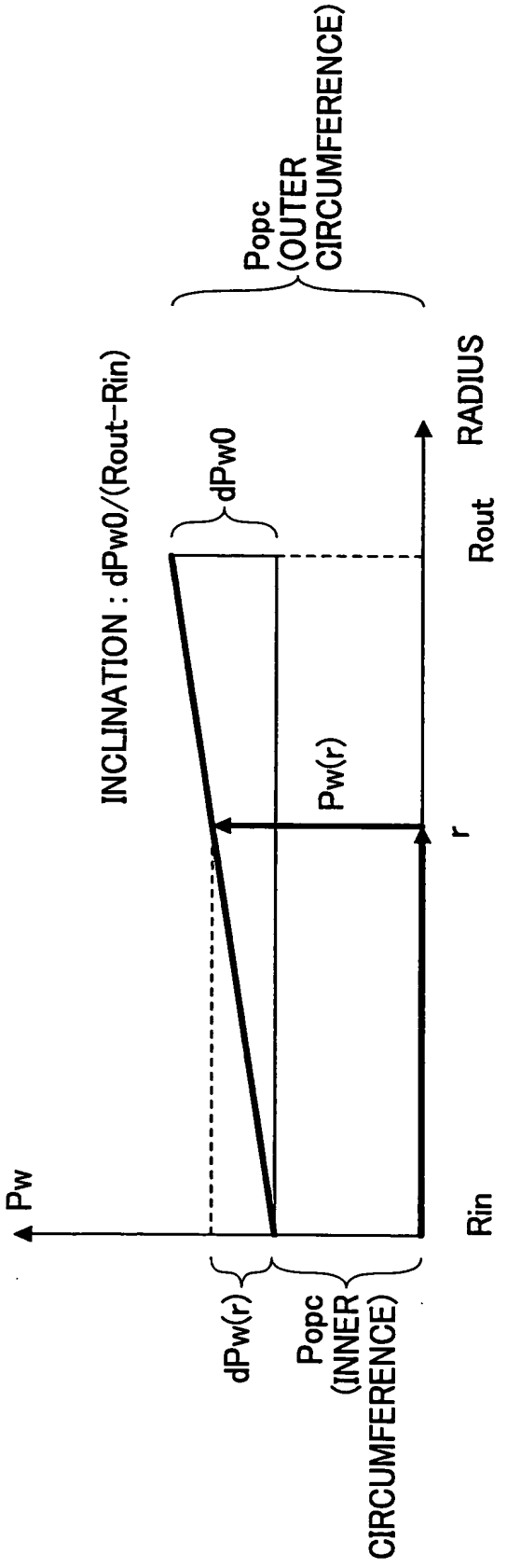
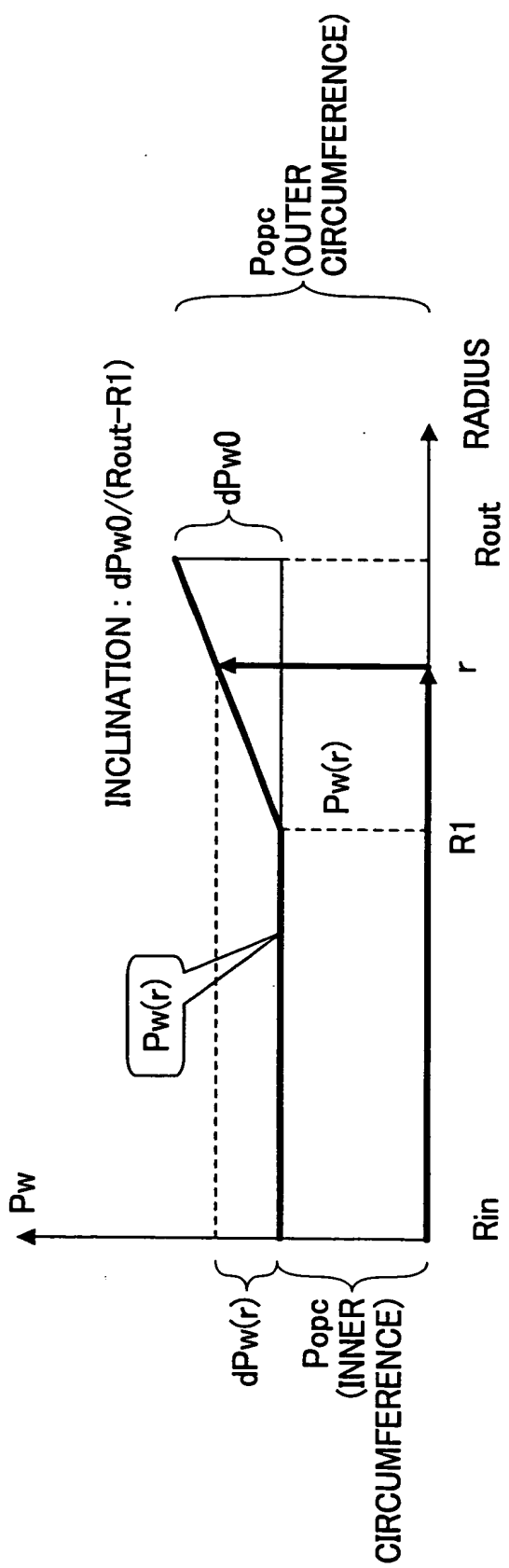

Pw
INCLINATION : dPw0/(Rout-Rin)
dPw0
Popc
(OUTER
CIRCUMFERENCE)
Pw(r)
r
RADIUS
Rout
Rin
dPw(r)
Popc
(INNER
CIRCUMFERENCE)

FIG.13


Pw
INCLINATION : dPw0/(Rout-R1)
dPw0
Popc
(OUTER
CIRCUMFERENCE)
Pw(r)
r
RADIUS
Rout
R1
Rin
Pw(r)
dPw(r)
Popc
(INNER
CIRCUMFERENCE)